

DESCRIPTION

The PMP85SF series of AC/DC switching power supplies are for 85 watts of continuous output power. They are enclosed in a 94V-0 rated polycarbonate case with an IEC320/C8 inlet to mate with interchangeable cord for world-wide use. All models meet EN55011 and FCC class B emission limits, and are designed for medical applications.

FEATURES

- High efficiency
- Low safety ground leakage current
- Wide input range 90 to 264 VAC
- 100% burn-in
- Short-circuit protection
- Over-temperature protection
- Compliant with CEC and Energy Star Efficiency level V requirements
 - * No load power consumption less than 0.5 W
 - * Average active efficiency greater than 87%
- Compliant with RoHS requirements
- Compliant with IPX1

INPUT SPECIFICATIONS

| | |
|------------------|--|
| Input voltage: | 90-264 VAC |
| Input frequency: | 47-63 Hz |
| Input current: | 1.70 A (rms) for 115 VAC 0.90 A (rms) for 230 VAC |
| Touch current: | 100 µA max. @ 264 VAC, 63 Hz |

OUTPUT SPECIFICATIONS

| | |
|--------------------------|---|
| Output voltage /current: | See rating chart. |
| Maximum output power: | See rating chart. |
| Ripple and noise: | 1% peak to peak maximum |
| Overvoltage protection: | Provided and set at 112-140% of its nominal output voltage |
| Overcurrent protection: | Protected to short circuit conditions |
| Temperature coefficient: | ±0.04% /°C maximum |
| Transient response: | Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 us after a 25% step load change |

ENVIRONMENTAL SPECIFICATIONS

| | |
|------------------------|--|
| Operating temperature: | 0°C to +60°C |
| Storage temperature: | -40°C to +85°C |
| Relative humidity: | 5% to 95% non-condensing |
| Derating: | Derate from 100% at +40°C linearly to 50% at +60°C |

PMP85SF SERIES



SAFETY STANDARD APPROVALS



UL ES 60601-1, CSA C22.2 No. 60601-1
File No. E211696



TÜV EN 60601-1

GENERAL SPECIFICATIONS

| | |
|----------------------|--|
| Switching frequency: | 75-100 KHz |
| Efficiency: | 87% min. |
| Hold-up time: | 10 ms minimum at 110 VAC |
| Line regulation: | ±0.5% maximum at full load |
| Inrush current: | 40 A @ 115 VAC or 80 A @ 230 VAC, at 25°C cold start |
| Withstand voltage: | 4000 VAC from input to output (2 MOPP) |
| MTBF: | 150,000 hours at full load at 25°C ambient, calculated per MIL-HDBK-217F |

EMC Performance (IEC60601-1-2)

| | |
|---------------|--|
| EN55011: | Class B conducted, class B radiated |
| FCC: | Class B conducted, class B radiated |
| VCCI: | Class B conducted, class B radiated |
| EN61000-3-2: | Harmonic distortion, class A |
| EN61000-3-3: | Line flicker |
| EN61000-4-2: | ESD, ±15 KV air and ±8 KV contact |
| EN61000-4-3: | Radiated immunity, 10 V/m |
| EN61000-4-4: | Fast transient/burst, ±2 KV |
| EN61000-4-5: | Surge, ±1 KV diff., ±2 KV com |
| EN61000-4-6: | Conducted immunity, 10 Vrms |
| EN61000-4-8: | Magnetic field immunity, 30 A/m |
| EN61000-4-11: | Voltage dip immunity, 30% reduction for 500 ms, 100% reduction for 10 ms |

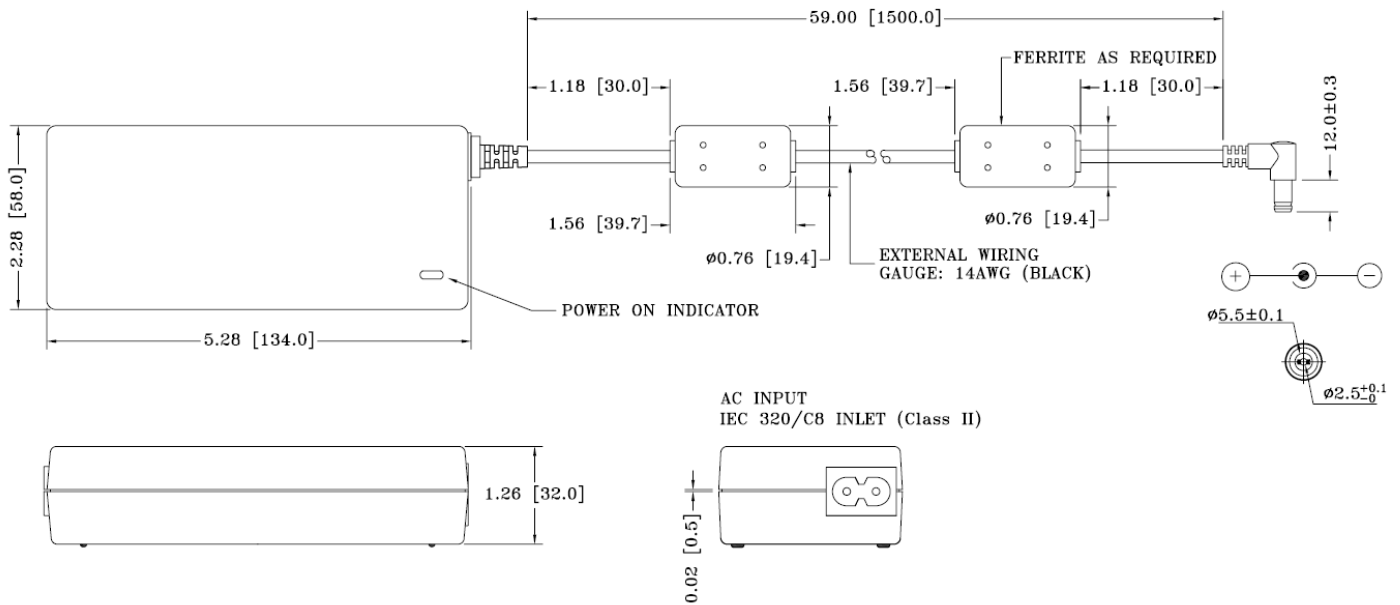
OUTPUT VOLTAGE/CURRENT RATING CHART

| Model | Output | | | | | | Average Active Efficiency (typical) @ 115 / 230 Vac | |
|--------------|----------|--------|--------------|--------------|------|-------------------------------|---|------------|
| | Class II | V1 | Min. Current | Max. Current | Tol. | Ripple & Noise ⁽¹⁾ | | Max. Power |
| PMP85SF-13-1 | | 18.0 V | 0 A | 4.72 A | ±5% | 180 mV | 85 W | 88 / 89% |
| PMP85SF-13-2 | | 19.0 V | 0 A | 4.47 A | ±5% | 190 mV | 85 W | 88 / 89% |
| PMP85SF-14 | | 24.0 V | 0 A | 3.54 A | ±5% | 240 mV | 85 W | 88 / 90% |

NOTES:

- Ripple and noise is maximum peak to peak voltage value measured at output within 20 MHz bandwidth, at rated line voltage and output load ranges, and with a 47 µF tantalum capacitor in parallel with a 0.1 µF ceramic capacitor across the output.

MECHANICAL SPECIFICATIONS



NOTES:

- Dimensions shown in inches [mm]
- Tolerance 0.02 [0.5] maximum
- Weight: 410 grams (0.906 lbs.) approx.

OUTPUT POWER DERATING CURVE

